

February 2, 2007

MEMORANDUM

TO: Mr. Steve Murray, P.L.S. - Tippecanoe County Surveyor

FROM: David W. Eichelberger, P.E. - CBBEL, Indianapolis

PROJECT: **Kirkpatrick Infrastructure
CBBEL Project No. 02-038 (FB)**

DEVELOPER/OWNER: **Tippecanoe Development, LLC**

LOCATION: **40° 21' 23" Latitude
-86° 50' 31" Longitude**

RECOMMENDATION: **Final Approval with Conditions**

A new access road is proposed on the north side of County Road 450 South, approximately 1 mile east of County Road 250 East (Concord Road) in Wea Township. The proposed road will provide access to the proposed Tippecanoe School Corporation South Elementary School and proposed future developments. Storm sewers, a dry detention basin and storm water quality systems to serve only this project will be constructed at this time. Under existing conditions, stormwater sheet flows to the north into the existing Kirkpatrick Regulated Drain. The proposed Upper Kirkpatrick Ditch Reconstruction project will adjoin the north side of the project and serve as the final post-developed outlet for the site. Additional future development in the area will be required to provide additional detention and water quality treatment.

This project will have a direct outlet to the J. N. Kirkpatrick Regulated Drain. Portions of the proposed project will encroach into the J. N. Kirkpatrick Regulated Drain Easement. The project site is not within the Tippecanoe County MS4 Area. The project site is located within the Elliott Ditch 305(b) Priority Watershed.

This project was previously reviewed in memorandums dated May 16, 2006 and January 23, 2007. After a review of the most recently provided information, CBBEL recommends final approval of the stormwater management plan with the following conditions:

Variances/Encroachments

1. The applicant has calculated an allowable release rate of 0.41 cfs for the subject development, based on the general release rate of 0.13 cfs/acre, as per the Upper Kirkpatrick Watershed Impact Drainage Area Resolution. The proposed project will achieve a proposed 100-year frequency release rate of 0.57 cfs. The applicant is requesting a variance from the resolution allowable release rate requirement. The applicant has noted that the proposed detention pond will utilize the smallest orifice allowed in the Ordinance, and that this temporary detention facility will be replaced by an in-line system in the future. CBBEL recommends approval of the variance request.

2. Portions of the proposed dry detention pond, the primary outlet, and the emergency spillway will encroach into the J. N. Kirkpatrick Regulated Drain easement. These encroachments will leave a relatively flat access width between the regulated drain channel and the proposed dry detention pond of 25 feet. This is consistent with the Tippecanoe County Surveyor's Office policy of leaving a relatively flat access width of at least 25' – 30'. The applicant must continue to coordinate these encroachments with the Tippecanoe County Surveyor's Office. These encroachments will also require final approval from the Tippecanoe County Drainage Board.

Stormwater Quantity

The proposed stormwater management plan appears to be in substantial compliance with the Ordinance and Standards.

Stormwater Quality

1. The applicant should provide post-construction BMP sizing calculations using the methodologies required by the Ordinance and Standards.
2. The applicant should still submit a signed copy of the Notice of Intent (N.O.I).

General Conditions

1. The applicant should obtain approval from the Tippecanoe County Highway Department for all work proposed within future right-of-way areas and for all work within the County Road 450 South Road Right-of-Way.
2. Certified construction plans and a copy of the certified drainage report must still be submitted.
3. The applicant must present the project at the Tippecanoe County Drainage Board meeting for the project to be considered for approval.
4. The applicant must pay any final drainage review fees per Ordinance 2005-04-CM and submit a letter to the County Surveyor's Office stating that these fees will be paid.
5. The applicant must pay the Phase II stormwater program fees.
6. All listed issues must be completely addressed before final plan approval and sign-off will be granted by the County Surveyor's Office.

No error or omission in either the plans, calculations or applications (whether said plans, calculations or applications have been reviewed by the review engineer or not) shall permit or release the applicant and designer from constructing this work in any other manner than that provided for in the County Ordinance.

pc: The Schneider Corporation

DWE/jd

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